

### **REMARKS/ARGUMENTS**

Claims 1-23 are pending in the application. Claims 1-23 are rejected.

Claims 1-4, 8-10, 11-16, and 20-22 were rejected under 35 U.S.C. §102(e) as being anticipated by Keller, U.S. Patent No. 6,636,959 (hereinafter “Keller”). Claims 5-7, 17-19, and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Keller in view of “Register Renaming and Dynamic Speculation: an Alternative Approach,” by Mayan Moudgill and Keshav Pingali (hereinafter “Moudgill”).

#### **Claim Rejections Under 35 U.S.C. §102(e)**

Claims 1-4, 8-10, 11-16, and 20-22 were rejected under 35 U.S.C. §102(e) as being anticipated by Keller. Keller discloses a line predictor to cache alignment information for instructions (*See Abstract*).

Applicants contend that Keller fails to teach or suggest determining a set of rename resources needed for the trace cache line on a *per-packet basis*, as recited in claims 1, 11 and 22.

The Office Action cites a passage from Keller that states:

Finally, the line is terminated if the instructions within the line update a predefined maximum number of destination registers. This termination condition is set such that the maximum number of register renames that map unit 30 may assign during a clock cycle is not exceeded. In the present embodiment, 4 renames may be the maximum.

(Keller, Column 23, lines 22-27).

No indication is given how the number of destination registers used is determined, as the Office Action admits by stating that the determination is inherent (*i.e.* not present but implied). Keller certainly does not disclose performing this determination on a per-packet basis. Thus, an element of claims 1, 11, and 22 are not disclosed by Keller. Therefore, claims 1, 11, and 22 and by their dependency claims 2-4, 8-10, 12-16, and 20-21, are not anticipated by Keller.

**Claim Rejections Under 35 U.S.C. §103(a)**

Claims 5-7, 17-19, and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Keller in view of Moudgill. Moudgill discloses a mechanism implementing register renaming, dynamic speculation, and precise interrupts (*See Abstract*).

Neither Keller, Moudgill, nor any combination of the two teach or suggest determining a set of rename resources needed for the trace cache line on a per-packet basis and comparing the set of rename resources needed for the provisional trace cache line to a rename capacity, as claimed in claims 1, 11, and 22, and by their dependency claims 5-7, 17-19, and 23.

Therefore, claims 5-7, 17-19, and 23, are not obvious under Keller in view of Moudgill.

For all the above reasons, the Applicant respectfully submits that this application is in condition for allowance. A Notice of Allowance is earnestly solicited.

The Examiner is invited to contact the undersigned at (408) 975-7500 to discuss any matter concerning this application.

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The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. §1.16 or §1.17 to Deposit Account No. **11-0600**.

Respectfully submitted,

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